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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/768,072	01/23/2001	Liam B. Quinn	M-9137 US	2497
7590 David L. Combs Haynes and Boone, LLP 901 Main Street Suite 3100 Dallas, TX 75202-3789			EXAMINER PAN, YUWEN	
			ART UNIT 2618	PAPER NUMBER
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**Technology Center 2600**

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/768,072  
Filing Date: January 23, 2001  
Appellant(s): QUINN ET AL.

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James R. Bell  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 12/05/2006 appealing from the Office action mailed 08/04/2006.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The statement of the status of claims contained in the brief is correct.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6560443	VAISANNEN et al.	5-2003
5884189	YAMAZAKI et al.	3-1999
6,249,686	DVORKIN et al.	6-2001
6,577,500	PAREDES et al.	6-2003

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4, 8-13, 15, 17, 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaisanen et al (US006560443B1) in view of Yamazaki et al (US005884189A) and in further view of Paredes et al (US006577500B2).

Per claims 1 and 15, Vaisanen discloses a portable computing system with selectable transceiver switching (see column 1 and line 8-14) comprising: a set of one or more transceivers, each of the transceivers with a unique communication protocol (see column 3 and line 61- column 4 and line 29), a switch capable of differentiating communication signals and determining and choosing an appropriate transceiver from the set of transceivers to communicate for the computing system (see figure 1, column 6 and lines 36-53); multi-band antenna capable of receiving and transmitting varying frequency signals to the chosen transceiver (see column 6 and lines 54-65), an antenna sharing switching circuitry for multi-transceiver mobile terminal in which is on the same ISM radio band but having different power/range requirements (see column 3 and lines 47-60), a connector (figure 1, item PA1) connecting an antenna system (item ANT1) to the switching for communicating with the transceiver WLAN (item 11), whereby power related switching is controlled between the one or more transceivers and the antenna system (see column 9 and lines 36-44), the antenna system being integrated into a chassis of the portable computing system and the transceivers and switch being integrated a circuit card (see figure 4).

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Vaisanen doesn't explicitly teach that the interface being at the software driver stack for controlling the interface to multiple types of the transceivers via an operating system. Yamazaki teaches that software is installed in the control unit for controlling the wireless transceiver (column 2 and lines 25-28), the software controlled unit responds for adapting to different communication protocols such as cellular, cordless and PCS (see column 29-32, column 3 and line 52-column 4 and line 30). It would have been obvious to one ordinary skill in the art at the time the invention was made to combine the teaching of Yamazaki such that it is fast and easy to regular switching function between two transceivers.

Combination of Vaisanen and Yamazaki doesn't teach that a RJ type of connector is also integrated into the circuit card. Paredes teaches that a wireless PC card with integrated in RJ type of connector (see figure 4). It would have been obvious to one ordinary skill in the art to combine the teaching of Paredes with the combination of Vaisanen and Yamazaki's device such that the user would have more option to connect his/her portable device with the network either wireless or wired.

Per claim 2 and 4, Vaisanen doesn't disclose that the switch is a zener diode or a current limiter device that differentiates upon power transmission. The examiner takes "Office Notice" that it is notoriously well known in the art to utilize a zener diode as a switch, in order to activate or deactivate a transmit mode. Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to utilize a zener diode as a switch such that a transmit mode would be selected or deselected based on the input voltage.

Per claims 8-10, and 17, 20, 21 Yamazaki further teaches that selection of a transceiver is performed by a software driver with a higher level protocol stack and the software driver is instructed by a set of software application of the portable computer system (column 3 and line 52-column 4 and line 30).

Per claim 11, Vaisanen further discloses the set of transceiver and the switch are integrated into a circuit card (see figure 4 and column 8 and lines 38-60).

Per claim 19, Vaisanen further discloses that the portable computing system is in a casing and then antenna is integrated into the casing (see column 6 and lines 35-53).

Per claims 12 and 13, Vaisanen further discloses the circuit card connects to a system board of the portable computer system and the circuit card is a mini PCI card (see column 5 and lines 35-55).

3. Claims 3, 5-7, are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaisanen et al (US006560443B1) and Yamazaki et al (US005884189A) as applied to claim 1 above, and further in view of Dvorkin et al (US006249686B1).

Per claim 3, combination of Vaisanen and Yamazak doesn't teach an active power sensor device. Dvorkin discloses an active power sensor device (see figure 1 and item 78, column 2 and lines 33-47). It would have been obvious to one ordinary skill in the art at the time the invention was made to enclose the active power sensor device such that adequate signal strength would be implemented for either receiving or transmitting.

Per claims 5-7, Dvorkin further discloses a lookup table that associated transmission power with each of the transceivers, whereby the switch selects a transceiver from the set of transceivers when a certain power state in the lookup table is detected and the switch selects a transceiver based on a transmitted or received power (see column 2 and lines 1-47).

**(10) Response to Argument**

Regarding to part A, The appellant argues that prior art of record, Vaisanen reference doesn't teach, "prioritized choosing based on one of power being used to transmit and power being received on a particular channel". Prior to the arguments whether the reference teaches such limitation or not, the examiner would like to analyze the language of such claim limitation. According to claim 1, as recited in appellant's appeal brief on page 4, there is a switch for a communication apparatus that switches at least between two different communication modes (e.g. Bluetooth and WLAN (IEEE 802.11(b)), for simplicity and easy to understand the claim language, the examiner is going to utilize these two well known wireless protocols in the art hereinafter to the two different communication modes, for a brief description of both wireless protocols please refer back to the background of the invention of Vaisanen reference), and the switch is going to switch/choose according/based on **either** the transmission power, assuming to be the transmission power of either the Bluetooth or WLAN, **or** receiving power of either the Bluetooth or WLAN.

Thus, the switch mechanism would be activated when one of the preset conditions is satisfied. If you have noticed that up to now, the examiner haven't address or utilize the term "prioritized". The examiner believes that it is sufficient to teach the meaning of "prioritized choosing" as long as one of the conditions is satisfied and taught by the prior art of the record.

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In addition, the appellant utilizes the “or” statement –on one of- as in claim 1, from the examination point of view, it would be sufficient for a complete rejection as long as one of the condition is satisfied. Thus, the examiner selected the latter one, which switch or choose one over the other base on the received power.

Clearly, Vaisanen reference (column 6, lines 36-53) teaches that when the receiving power of one channel that is for WLAN is so weak (outside of the WLAN coverage), the Bluetooth would kick in while it is available for the user terminal and corresponding Bluetooth transceiver would be switch to the proper antenna via the switch. The examiner believes that such teaching also anticipate the sample description of appellant’s support for the addressed claim language (see appellant’s specification page 9 and line 11-16).

Furthermore, the examiner believed that the examiner had addressed prioritized choosing, at least satisfying the former condition in which switch based on the transmission power (see final office action filed on 01/13/2005, page 3).

Independent claim 1 rejection recites from final office action filed on 01/13/2005, in part,

Means for prioritizing selection of a type of communication technology (see column 5 and line 14-26).

The cited portion of the text of Vaisanen (column 5 and lines 14-26) states:

Although there are some minor drawbacks resulting from losses when switching from the second antenna, which is a diversity antenna shared between WLAN and Bluetooth, for example, the benefits arising as a result of using the low powered/low range Bluetooth radio, clearly, outweigh any such drawbacks. In this connection, the present invention features a scheme in which one of the two WLAN diversity antennae is switched for Bluetooth radio use when the Bluetooth radio needs to be functional. In general, the second transceiver, for example, the Bluetooth radio, is connected to the antenna port assigned thereto when the mobile terminal is physically outside the coverage area of the WLAN radio. Since the WLAN radio would typically be the preferred choice of communication linkage, in

a mobile terminal where one of the transceivers is a WLAN and the other is a BT radio, the WLAN coverage can be monitored during the time the second transceiver, for example, the Bluetooth radio, is in use. During this time, the first transceiver is coupled at its receiver port to the first antenna monitoring an access point (AP), the access point becoming available through that one of the diversity antennae which is not being used by the Bluetooth radio.

Vaisanen clearly teaches that the switching is based on the transmitting power of one particular wireless protocol. The mobile terminal might switch to Bluetooth because it's low power/low range or switch to WLAN as to be typically the preferred choice of communication linkage because of its higher power/wider coverage.

Regarding part B, the appellant argues that the references are not properly combinable and there is no motivation to combine. The examiner respectfully disagrees because all the showing, suggestion and motivation have been disclosed in the final office action, please see the final office action regarding claim 1 and 15 for detail.

Regarding part B, since claims 1 and 15 have been properly rejection, their dependent claims therefore are rejected at least the same reasons as their independent claims 1 and 15.

#### **(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

January 16, 2007

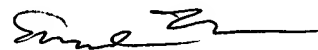
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